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Tatsuya Kawakami

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EXAMINER

LUONG, VINH

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/711,702	Applicant(s) KAWAKAMI, TATSUYA	
	Examiner Vinh T. Luong	Art Unit 3656	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 November 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input checked="" type="checkbox"/> Other: <u>Attachment</u> |

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1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 3656.

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on November 6, 2008 has been entered.

3. The restriction requirement on January 2, 2008 and Applicant's election of the species of FIGS. 10 and 11 on January 10, 2008 are carried over to the instant RCE.

4. No claim is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on January 10, 2008.

5. The drawings were received on November 6, 2008. These drawings are accepted by the Examiner.

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 1-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant

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art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Amended claim 1 recites “wherein the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally*” (emphasis added). The new phrase “*when viewed horizontally*” is unsupported by the application as filed. See MPEP 2163.01.

A review of the record shows that Applicant originally disclosed “wherein the pivot axis (P) is inclined relative to the handlebar mounting axis (HB)” as seen, e.g., in the abstract and paragraphs [0004] and [0025] of the specification.

The first time that the description “when viewed horizontally” appeared was the time of filing of the amendment on November 6, 2008. The original disclosure was silent about the viewing of the inclination of the pivot axis P relative to the handlebar mounting axis HB. Thus, the original disclosure implied that the pivot axis P could be inclined relative to the axis HB when viewed horizontally, vertically, or at a predetermined direction, especially, in view of the fact that Applicant’s drawings are not engineering drawings on scale. After the filing date, the recitation of a specific viewing of the axis P relative to the axis HB within a full spectrum of possible viewings disclosed on the filing date is considered under the present disclosure to be new matter. *Cf., In re Smith*, 173 U.S.P.Q. 679 (CCPA 1972) and *Ex parte George*, 230 U.S.P.Q. 575, 578 (Bd. Pat. App. & Inter. 1986). In other words, the concept that the axis P is inclined relative to the axis HB *when viewed horizontally* is not conveyed in the original disclosure. Thus, it lacks of a written description under 35 USC 112, first paragraph. See *In re Anderson*, 176 USPQ 331 (CCPA 1973) and *In re Rasmussen*, 650 F.2d 1212, 211 USPQ 323 (CCPA 1981) cited in MPEP 2163.01 *supra*.

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8. Claims 1, 13, and 18 are directed to an invention not patentably distinct from claims 1, 8, 18, and 19 of commonly assigned reissued Application No. 11389658 (hereinafter “Appl.’658”). Specifically, claims 1, 13, and 18 of the instant application and claims 1, 8, 18, and 19 of Appl.’658 claim obvious inventions as seen below.

9. The U.S. Patent and Trademark Office normally will not institute an interference between applications or a patent and an application of common ownership (see MPEP Chapter 2300). Commonly assigned Appl.’658 discussed above, would form the basis for a rejection of the noted claims under 35 U.S.C. 103(a) if the commonly assigned case qualifies as prior art under 35 U.S.C. 102(e), (f) or (g) and the conflicting inventions were not commonly owned at the time the invention in this application was made. In order for the examiner to resolve this issue, the assignee can, under 35 U.S.C. 103(c) and 37 CFR 1.78(c), either show that the conflicting inventions were commonly owned at the time the invention in this application was made, or name the prior inventor of the conflicting subject matter.

A showing that the inventions were commonly owned at the time the invention in this application was made will preclude a rejection under 35 U.S.C. 103(a) based upon the commonly assigned case as a reference under 35 U.S.C. 102(f) or (g), or 35 U.S.C. 102(e) for applications pending on or after December 10, 2004.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

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Vogel, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 1, 13, and 18 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 8, 18, and 19 of copending Appl.'658. Although the conflicting claims are not identical, they are not patentably distinct from each other because Applicant used minor different terminology to claim substantially the same invention. *In re Griswold*, 365 F.2d 834, 150 USPQ 804 (CCPA 1966) cited in MPEP 804.02. For example, see the comparison among claims 1, 8, 18, and 19 of Appl.'658 and claims 1, 13, and 18 of this application below:

<u>Common</u>	<u>Appl.'658</u>	<u>Appl.'702</u>
shift control device (105)		
control body (170)	cls. 1, 8, 18, 19	cl. 1
(rotational) axis (X)	cls. 1, 8, 18, 19	cl. 1
mounting member (103)	cls. 1, 8	
handlebar mounting axis (HB)		
	operating body (220, Cl. 1) or linear operating body (Cl. 19)	first operating body (220)
abutment (201)	cls. 1, 8, 18, 19	cl. 1

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(first) transmission (150)	cls. 1, 8, 18, 19	cl. 1
plurality of ratchet teeth (171)	cls. 1, 8, 18, 19	cl. 1
interface member (202)		
	pivots (cl. 19)	pivot axis (P, cl. 1)
force receiving surface (203), or force finger contact	cls. 1, 18 cls. 8, 19	cl. 1
force applying surface (406)	cls. 1, 8, 18, 19	cl. 1
second operating body (130)	cls. 8, 19	cl. 13
second transmission (160)	cls. 8, 19	cl. 13

As noted above, the difference among claims 1, 8, 18, and 19 of Appl.'658 and claim 1 of this application is that claim 1 of this application explicitly claims the pivot axis P of the interface member 202, meanwhile, claim 19 of Appl.'658 does not. However, claim 19 of Appl.'658 implicitly claims the pivot axis P as seen in the recitation “wherein *the interface member pivots* so that the operating force applying surface applies an operating force to the abutment of the linear operating body” (emphasis added) in lines 7-11. To the extent that claim 1 of Appl.'658 further recites “the axis (X) is oriented substantially perpendicular to the handlebar mounting axis (HB),” this feature is also claimed in claim 18 of this application. On the other hand, the handlebar is merely an intended use element in Claim 1 of Appl.'658 as recited in the “adapted to” clause in line 4 of claim 1 of Appl.'658. It is well settled that an element is “adapted to” perform a function is not a positive limitation but only requires the ability to so perform, thus, it does not constitute a limitation in any patentable sense. *In re Hutchison*, 69 USPQ 138 (CCPA 1946).

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As evidenced from FIGS. 1-3 of Appl.'658, the position of the mounting member 103 can be adjusted by rotating or turning the mounting sleeve 103A relative to the handlebar 101. When the position of the member 103 is adjusted, the angle defined by the handlebar mounting axis HB (*i.e.*, the axis of the sleeve 103A, see FIGS. 1-3 of the Attachment hereinafter "Att.") and the rotational axis X (FIG. 3 of Att.) is adjusted therewith.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange or adjust the position of the mounting member 103 claimed in this application such that the angle defined by the handlebar mounting axis HB and the rotational axis X is substantially 90°, *i.e.*, to make the axis HB substantially perpendicular to the axis X as claimed in claim 1 of Appl.'658 in order to facilitate the operation of the control device for the rider as taught or suggested by common knowledge in the art. The modification of the claimed shift control device by adjusting or rearranging the positioning of the mounting sleeve so that the axes HB and X would be substantially perpendicular to each other would not have been uniquely challenging to a person of ordinary skill in the art because it is no more than "the simple substitution of one known element for another or the mere application of a known technique to a piece of prior art ready for the improvement." *KSR Int'l. Co. v. Teleflex Inc.*, 127 S. Ct. 1727, 1741, 82 USPQ2d 1385, 1396 (2007) and because it "does no more than yield predictable results." *KSR* at 1739.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

12. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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13. Claims 1-8 and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shahana (EP 1 134 158 A2 cited as category X reference in the European Search Report).

At the outset, note that EP 1 134 158 claims the priority based on US Patent Application No. 09/527,759. The Appl.'759 was issued as US Patent No. 6,450,060 and is now the subject matter in the reissue Appl.'658. The drawings in EP 1 134 158 are identical to the drawings in US Pat.'060. The Examiner uses the drawings in US Pat.'060 as exhibits in the Attachment or "Att." mentioned below to avoid the redundancy.

Regarding 1, Shahana teaches a bicycle shift control device 105 which operates a shifting mechanism via a shift control cable 104, the shift control device 105 comprising:

a mounting member 103 *structured to mount the shift control device 105 to a handlebar 101*, wherein the mounting member 103 defines a handlebar mounting axis (HB, see FIGS. 1-5 in Att.);

a control body 170 supported by the mounting member 103 and rotatable about a rotational axis (X in Att.) for controlling the shift control cable 104;

a first operating body 220 having an abutment 201 in a position spaced apart from the control body 170 and which is coupled to the shift control device 105 for displacement between a first home position and a first shift position;

a first transmission 150 which converts the displacement of the first operating body 220 from the first home position to the first shift position into a rotational displacement of the control body 170, wherein the first transmission 150 includes a plurality of ratchet teeth 172, 173; an interface member 202 movably mounted relative to the first operating body 220 and having an

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operating force receiving surface 203 (FIG. 3) and an operating force applying surface 204 (FIGS. 4 and 5),

wherein the operating force receiving surface 203 is *adapted to* receive an operating force from a rider;

wherein the interface member 202 pivots around a pivot axis (P, see FIG. 3 of Att.) so that the operating force applying surface 204 applies the operating force to the abutment 201 of the first operating body 220 for moving the first operating body 220 from the first home position to the first shift position;

wherein the pivot axis (P, FIG. 3 of Att.) is capable of being *inclined* relative to the handlebar mounting axis HB (FIGS. 1-3. *Ibid.* paragraphs [0016] and [0017], and claim 3); and

wherein the interface member 202 moves in a direction toward a plane (PL, FIG. 3 of Att.) that contains the handlebar mounting axis HB (FIG. 3) and is parallel with the rotational axis (X) when the first operating body 220 moves from the first home position toward the first shift position.

As noted, FIGS. 1-7 of Shahana are *substantially* identical, if not identical to the species of FIGS. 1-7 of this application. In other words, Shahana teaches the first species of FIGS. 1-7 of this application. Simply put, Shahana substantially teaches the invention as claimed in claim 1 of this application except the pivot axis (P) inclined relative to the handlebar mounting axis (HB) when viewed horizontally.

From FIGS. 1-3, Shahana's pivot axis P is capable of being inclined relative to Shahana's handlebar mounting axis HB when viewed horizontally by rotating or turning the mounting sleeve 103A about the handlebar 101 so that the rider is not required to press perpendicularly to

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the handlebar without precision placement of the rider's thumb. Shahana, paragraphs [0016] and [0017]. See legal precedent regarding rearrangement of parts or in MPEP 2144.04.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange the position of the mounting sleeve 103A of Shahana by rotating or turning the sleeve 103A about the handlebar 101 such that the pivot axis P is inclined relative to the handlebar mounting axis HB when viewed horizontally in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb as taught or suggested by Shahana. *KSR, supra*.

Regarding claim 2, the plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 4 and 5), and wherein the ratchet teeth plane T is parallel to a horizontal axis (H in FIG. 4 of Att.). *Ibid.* claim 4.

Regarding claim 3, the plurality of ratchet teeth 173 are disposed in a ratchet teeth plane T (FIGS. 3-5), and wherein a path of movement of the first operating body 220 is *substantially* parallel to the ratchet teeth plane T as seen in FIGS. 3-5.

Regarding claims 4 and 5, Shahana teaches the invention substantially as claimed. In addition, Shahana's pivot axis P is positioned at an angle relative to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* perpendicular to the rotational axis X as shown in FIGS. 1-3. Moreover, Shahana implicitly suggest to rearrange Shahana's axes P, HB and X such that Shahana's pivot axis P is *substantially* perpendicular to the handlebar mounting axis HB and Shahana's pivot axis P is *substantially* parallel to the rotational axis X (by, e.g., adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to

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allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb. Shahana, paragraphs [0016] and [0017].

It would have been obvious to one having ordinary skill in the art at the time the invention was made to rearrange Shahana's axes such that Shahana's pivot axis is *substantially* perpendicular to the handlebar mounting axis and Shahana's pivot axis is *substantially* parallel to the rotational axis (by, e.g., adjusting or rotating the mounting sleeve 103A relative to the handlebar 101 as seen in FIGS. 1-3) in order to allow the rider to press perpendicularly to the handlebar without precision placement of the rider's thumb as implicitly taught or suggested by Shahana. *KSR* and legal precedent regarding rearrangement of parts in MPEP 2144.04, *supra*.

Regarding claim 6, the interface member 202 comprises a lever 202.

Regarding claim 7, the lever 202 comprises an operating force receiving member 203 (FIG. 3) extending from the pivot axis (P); and an operating force applying member 204 (FIGS. 4 and 5) extending from the operating force receiving member 203. *Ibid.* abstract.

Regarding claim 8, the pivot axis P is disposed at a junction between the operating force receiving member 203 and the operating force applying member 204 as seen in FIGS. 3-5.

Regarding claim 11, the first operating body 220 (FIG. 3) moves linearly between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Regarding claim 12, the first operating body 220 moves in a straight line (i.e., linearly) between the first home position and the first shift position. *Ibid.* claims 2 and 6.

Regarding claim 13, a second operating body 130 is coupled to the shift control device 105 for displacement between a second home position and a second shift position; and a second transmission 160 converts the displacement of the second operating body 130 from the second

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home position to the second shift position into a rotational displacement of the control body 170.

Ibid. abstract and claims 1-7.

Regarding claim 14, the second operating body 130 rotates between the second home position and the second shift position.

Regarding claim 15, the second operating body 130 forms a finger contact part 132 in a position spaced apart from the control body 170 (FIG. 3).

Regarding claim 16, the second operating body 130 rotates around the rotational axis (X in Att.).

Regarding claim 17, see regarding claim 12 above.

Regarding claim 18, see regarding claims 4 and 5 above.

Regarding claim 19, the pivot axis P extends through an end portion of at least one of the operating force receiving member 203 or the operating force applying member 204 as seen in FIG. 3.

Regarding claim 20, the operating force receiving member 203 extends away from the pivot axis P as seen in FIG. 3 in Att., and the operating force applying member 204 extends away from the operating force receiving member 203 and away from the pivot axis P as seen in FIGS. 4 and 5 in Att.

Regarding claim 21, see regarding claim 8 above.

14. Claims 9, 10, and 22-24 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, first paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Shahana'874 (FIG. 28).

16. Applicant's arguments filed November 6, 2008 have been fully considered but they are not persuasive.

Drawings

The replacement drawings are accepted.

Amendments to the Claims

On page 7 of the amendment, Applicant contended: "[c]laim 1 has been amended to clarify that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally. That is, when viewed as shown in Figs. 2 and 4, and not when viewed vertically as shown in Fig. 3.*" (Emphasis added).

MPEP 608.01(o) states:

New claims and amendments to the claims already in the application should be scrutinized not only for new matter but also for new terminology. *While an applicant is not limited to the nomenclature used in the application as filed, he or she should make appropriate amendment of the specification whenever this nomenclature is departed from by amendment of the claims so as to have clear support or antecedent basis in the specification for the new terms appearing in the claims.* This is necessary in order to insure certainty in construing the claims in the light of the specification, *Ex parte Kotler*, 1901 C.D. 62, 95 O.G. 2684 (Comm'r Pat. 1901). See 37 CFR 1.75, MPEP § 608.01(i) and § 1302.01. Note that examiners should ensure that the terms and phrases used in claims presented late in prosecution of the application (including claims amended via an examiner's amendment) find clear support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description, see 37 CFR 1.75(d)(1). (Emphasis added).

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The Examiner respectfully submits that Applicant's drawings are not engineering drawings on scales. Therefore, FIGS. 2 and 4 imply that the pivot axis P may be parallel with or inclined at an angle relative to the handlebar mounting axis HB. After the filing date, the recitation of a specific viewing of the axis P relative to the axis HB within a full spectrum of possible viewings disclosed on the filing date is considered under the present disclosure to be new matter. *Cf., In re Smith* and *Ex parte George, supra*. In addition, Applicant did not specifically point out the support in the written disclosure for the above amendment. See MPEP 2163.06. Hence, the phrase "when viewed horizontally" in amended claim 1 necessitate a new ground of rejection under 35 USC 112, first paragraph.

35 USC 103

As an initial matter, with respect to the statement at paragraph [0025] of the Applicant's specification, Applicant asserted on pages 7 and 8 of the amendment that this statement is *not* an admission of the state of the prior art. However, this statement is applied to Applicant's embodiment of FIGS. 1-7. Moreover, the embodiment of FIGS. 1-7 is substantially identical, if not identical to the embodiment taught by Shahana. It is well settled that similar structures are expected to behave similarly. *In re King*, 801 F.3d 1324, 231 USPQ 136 (Fed. Cir. 1986). Therefore, it is reasonable to expect that the statement at paragraph [0025] of Applicant's specification is similarly applied to the embodiment of FIGS. 1-7 taught by Shahana. Indeed, as seen in FIGS. 1-3 of Shahana, one having ordinary skill in the art may adjust the position of the mounting sleeve 103a relative to the handlebar 101 upwardly or downwardly to make the pivot axis P of the interface 202 inclined relative to the handlebar mounting axis HB as claimed.

More importantly, Applicant admitted on page 7 of the amendment that “[c]laim 1 has been amended to clarify that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally. That is, when viewed as shown in Figs. 2 and 4, and not when viewed vertically as shown in Fig. 3.*” (Emphasis added).

Applicant’s FIGS. 2 and 4 are virtually identical to FIGS. 2 and 4 shown in EP’158 or US Pat.’060 issued to Shahana. Common sense or common knowledge in the art teaches that if the pivot axis P claimed in this application is inclined relative to the handlebar mounting axis HB when viewed horizontally, then, the pivot axis P disclosed in EP’158 or Pat.’060 is similarly inclined. It is well settled that structural similarities have been found to support a *prima facie* case of obviousness. *In re Merck & Co.*, 800 F.2d 1091, 1096-97, 231 USPQ 375, 378-79 (Fed. Cir. 1986) and cases cited in MPEP 2144.08. Simply put, Shahana’s pivot P is similarly inclined relative to the handlebar mounting axis HB in the same manner as Applicant’s axes based on the similarities shown in these FIGS. 1-7 and based on Applicant’s admission about the inclination of the pivot axis P in FIGS. 2 and 4 made on page 7 of this amendment.

In view of the foregoing, Applicant’s denial of the statement at paragraph [0025] of the specification is unpersuasive since it is in direct conflict with substantial evidence presented in the record.

With respect to 35 USC 103 rejection based on Shahana, Applicant contended:

First, Shahana does *not* teach that the pivot axis (P) *may or may not be inclined* relative to the handlebar mounting axis as stated at page 4, paragraph 5 of the office action, nor is there any basis to say that Shahana teaches a "generic" invention as stated at page 5, paragraph 1 of the office action.

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The Examiner respectfully submits that although Shahana may not explicitly suggest to rearrange the pivot axis (P) of the tab interface (202) so that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB), however, Shahana implicitly suggests such rearrangement as transparently shown by the similarities among FIGS. 1-7 of Shahana and Applicant. As noted above, structural similarities have been found to support a *prima facie* case of obviousness. *In re Merck & Co.* and cases cited in MPEP 2144.08 regarding the teachings of structural similarity. In the instant case, contrary to Applicant's subjective observation, one can adjust the position of the mounting sleeve 103A of the mounting 103 relative to the handlebar 101 by rotating it relative to the handlebar 101 to achieve the predictable results of having the axes P and HB inclined relative to each other. Therefore, claim 1 is unpatentable as a matter of law per Supreme Court mandate in *KSR*.

Further, Applicant's arguments are inconsistent with Applicant's own admission on page 7 of this amendment that FIGS. 2 and 4 of this application, i.e., FIGS. 2 and 4 of Shahana, show that the axis P is inclined relative to the axis HB. Here, amended claim 1 reads on the species of FIGS. 2 and 4 as Applicant admitted. Amended claim 1 also reads on the elected species of FIGS. 10 and 11. Hence, claim 1 is generic in this application. However, Shahana's FIGS. 2 and 4 are identical to Applicant's FIGS. 2 and 4, *a fortiori*, Shahana teaches the species of FIGS. 2 and 4 or FIGS. 1-7 in this application claimed in generic claim 1.

Applicant further alleged:

Second, the bottom of page 9 of the office action refers to paragraph [0017] of Shahana as teaching an inclined pivot axis (P). That is not true. Paragraph [0017] states that the path of movement of sliding operating body (220) is substantially parallel to the plane of ratchet teeth (T), but the path may vary by plus or minus thirty degrees. However, that has no effect on the orientation

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of pivot axis (P) that is associated with interface member (202). It should be emphasized that the cited passage refers to operating body (220), not to interface member (202). If the cited passage referred to interface member (202), then the Examiner's reasoning would have merit. However, the cited passage only indicates that the orientation of Shahana's *operating body (220)* can be angled up or down in Figs. 4 and 5 *without changing the configuration of interface member (202)*. Even it were desired to change anything about interface member (202), the logical modification would be simply to move pivot shaft (216) up or down while keeping pivot axis P parallel to the handlebar axis. There is no suggestion, express or implied, to change the orientation of pivot axis P.

The above contention is likewise unsupported by substantial evidence in the record. Indeed, Applicant admitted: "Paragraph [0017] states that the path of movement of sliding operating body (220) is substantially parallel to the plane of ratchet teeth (T), *but the path may vary by plus or minus thirty degrees.*" (Emphasis added). As evidenced by FIGS. 1-5 of Shahana and of the Applicant, when the path of movement of the body 220 is varied by plus or minus 30°, and when the handlebar axis HB is remained fixed as seen in FIGS. 1 and 2, the axis P is varied therewith relative to the axis HB by plus or minus 30° because the axis P is positioned on the plane of the path as shown in FIGS. 3-5. In other words, as shown in Shahana's FIG. 2, if one changes the path of Shahana's operating body 220 by plus or minus 30° relative to the plane of the ratchet teeth T of the teeth 171, that path would also be inclined by plus or minus 30° relative to the handlebar mounting axis HB because the plane of the axis HB is substantially parallel with the plane of the ratchet teeth 171.

Applicant further contended that there is no suggestion, express, or implied to change the orientation of pivot axis P.

On the one hand, the above contention is inconsistent with Applicant's own admission that FIGS. 2 and 4 show that the axis P is inclined relative to the axis HB when viewed

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horizontally. In other words, Applicant admits that Shahana's drawings teach or suggest the amended claim 1. On the other hand, Applicant's contentions are apparently contrary to the law of logic or common sense that teaches that similar structures would behave similarly. See *In re Merck, supra*. Here, on the one hand, Shahana's device and Applicant's first embodiment are the virtually identical or the same, on the other hand, claim 1 "reads on" the first embodiment. Consequently, Shahana teaches or suggests claim 1.

Notwithstanding the above facts, it is well settled law that obviousness question cannot be approached on basis that skilled artisans would only know what they read in references; such artisans must be presumed to know some thing about the art apart from what the references disclose. *In re Jacoby*, 309 F.2d 513, 516, 135 USPQ 317, 319 (CCPA 1962).

In the instant case, paragraph [0016] of Shahana expressly states that operating force receiving surface (203) of operating tab (202) is inclined relative to a horizontal axis. As shown in Shahana's FIG. 3, the tab 202 is pivoted by the pivot axis 216 (*i.e.*, the axis P of the interface 202) in the same manner as Applicant's tab 202 in Applicant's FIG. 3. If one makes Shahana's tab 202 inclined relative to the horizontal axis (*i.e.*, handlebar axis) as explicitly suggested by Shahana, one would have to reorient the axis 216 inclined therewith because the axis 216 passing through the openings formed in the tab 202.

Assuming *arguendo* that Shahana does not implicitly teach the rearrangement as claimed, the Supreme Court has laid Applicant's arguments to rest by pointing out that while there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness, "the analysis need not seek out precise teachings directed to the specific subject

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matter of the challenged claim, for a court can take account of the inferences and creative steps that a person of ordinary skill in the art would employ." *KSR* at 1396.

When a work is available in one field of endeavor, design incentives and other market forces can prompt variations of it, either in the same field or a different one. If a person of ordinary skill can implement a predictable variation, § 103 likely bars its patentability.

For the same reason, if a technique has been used to improve one device, and a person of ordinary skill in the art would recognize that it would improve similar devices in the same way, using the technique is obvious unless its actual application is beyond his or her skill.

Id. at 1740, 82 USPQ2d at 1396. The Examiner must ask whether the improvement is more than the predictable use of prior art elements according to their established functions. *Id.* In the instant case, Applicant's rearrangement of the position of the mounting sleeve 103A relative to the handlebar mounting axis HB provides no more than predictable results. In fact, the instant results are identical to the ones obtained by Applicant's embodiment of FIGS. 1-7. Hence, Applicant's claim 1 is not patentable as a matter of law based on *KSR*.

Here, Applicant does not change the function performed by the species of FIGS. 1-7 or Shahana's device as evidenced by the exact similarities among Shahana's FIGS. 1-7 and Applicant's FIGS. 1-7. Assuming *arguendo* that there is a change, such change would be merely a variation in the orientation of the axes P and HB. Such modification by the rearrangement of the orientations of Shahana's axes P and HB would have been a matter of choice in design since the claimed structures and the function they perform are the same as the prior art. *In re Chu*, 66 F.3d 292, 36 USPQ2d 1089 (Fed. Cir. 1995) citing *In re Gal*, 980 F.2d 717, 719, 25 USPQ2d 1076, 1078 (Fed. Cir. 1992). Put in another fashion, such resulted change is obviously

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predictable as transparently evidenced by FIGS. 1-7 of Applicant and Shahana, *a fortiori*, Applicant's claims are unpatentable pursuant to *KSR supra*.

On page 10 of the amendment, Applicant alleged that the elected species of FIGS. 10 and 11 is entirely different from the rider's perspective. It is well settled that a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then, it meets the claim. *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). In addition, it is well settled that the claims drawn to an apparatus must distinguish from prior art in terms of structure rather than function. *In re Schreiber*, 44 USPQ2d 1429 (Fed. Cir. 1997); *In re Danly*, 120 USPQ 528 (CCPA 1959); *Ex parte Masham*, 2 USPQ2d 1647 (BPAI 1987) and MPEP § 2114. Therefore, Applicant's tandem reliance on the alleged different modes of operation of the species of FIGS. 1-7 and the elected species of FIGS. 10 and 11 is unpersuasive.

It is note worthy that in the second paragraph on page 10 of the amendment, Applicant alleged that "as noted above, Applicant's claims are not directed to the structure shown in Figs. 4-7." The instant allegation is inconsistent with the admission on page 7 of the amendment that "[c]laim 1 has been amended to clarify that the pivot axis (P) is inclined relative to the handlebar mounting axis (HB) *when viewed horizontally. That is, when viewed as shown in Figs. 2 and 4, and not when viewed vertically as shown in Fig. 3.*" (Emphasis added).

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Contrary to Applicant's inconsistent arguments, the Examiner respectfully submits that at least independent claim 1 reads on the species of FIGS. 1-7 because claim 1 calls for the elements 105, 104, 103, etc. shown in FIGS. 1-7, such as, listed below:

a bicycle shift control device 105 which operates a shifting mechanism via a shift control cable 104, the shift control device 105 comprising:

a mounting member 103 *structured to mount the shift control device 105 to a handlebar 101*, wherein the mounting member 103 defines a handlebar mounting axis;

a control body 170 supported by the mounting member 103 and rotatable about a rotational axis for controlling the shift control cable 104;

a first operating body 220 having an abutment 201 in a position spaced apart from the control body 170 and which is coupled to the shift control device 105 for displacement between a first home position and a first shift position;

a first transmission 150 which converts the displacement of the first operating body 220 from the first home position to the first shift position into a rotational displacement of the control body 170, wherein the first transmission 150 includes a plurality of ratchet teeth 172, 173; an interface member 202 movably mounted relative to the first operating body 220 and having an operating force receiving surface 203 and an operating force applying surface 204.

To the extent that Applicant's adding the functional statements in "wherein" clause of claim 1, however, the "wherein" or "whereby" clause that merely states the inherent results of limitations in the claim adds nothing to the claim's patentability or substance. *Texas Instruments Inc. v. International Trade Commission*, 26 USPQ2d 1018 (Fed. Cir. 1993); *Griffin v. Bertina*, 62 USPQ2d 1431 (Fed. Cir. 2002); and *Amazon.com Inc. v. Barnesandnoble.com Inc.*, 57 USPQ2d 1747 (Fed. Cir. 2001). Put differently, in order to distinguish over the species of FIGS. 1-7, the apparatus claim 1 must distinguish in terms of structure rather than function. *In re Schreiber*; *In re Danly*; *Ex parte Masham*; and MPEP § 2114 *supra*.

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On page 10 of the amendment, Applicant argued about FIGS. 2 and 3 of USP 6,848,335 to Kawakami, FIG. 1 of USP 6,564,671 to Ose, and FIG. 2 of USP 6,155,132 to Yamane, Applicant asserted that none of these references show an interface member as claimed.

Contrary to Applicant's arguments, Kawakami teaches the interface, such as, 71, 171 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 32a, 132a as evidenced by, e.g., Kawakami's FIGS. 4 and 5. Similarly, Ose teaches the interface, such as, e.g., 82 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 54 as evidenced by, e.g., Ose's FIG. 1; and Yamane teaches the interface, such as, 68 inclined relative to the mounting axis of the handlebar, i.e., the axis of the sleeve 31 as evidenced by, e.g., Yamane's FIGS. 2 and 3.

With respect to claims 4 and 5, to simplify the issues, the rejection based on common knowledge in the art is withdrawn, sic., Applicant's arguments are deemed to be moot.

With respect to claim 7, Shahana's force applying member 204 is clearly extended from the force receiving member 203 as seen in FIGS. 4 and 5 of Shahana or of Applicant.

With respect to claim 9, the Examiner agrees that amended claim 9 is specifically drawn to the elected species of FIGS. 10 and 11. Thus, claim 9 and its dependent claims 10 and 22-24 are indicated to be allowable, sic., Applicant's arguments are deemed to be moot.

With respect to new claims 18-21, these claims are not patentable for the similar reasons set forth for claims 4, 5, and 8 and FIGS. 3-5.

Conclusion

For the foregoing, Applicant's request to allow the instant case is respectfully declined.

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17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Vinh T. Luong whose telephone number is 571-272-7109. The examiner can normally be reached on Monday - Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Vinh T Luong/
Primary Examiner, Art Unit 3656